

SPIRANTHES EMILIAE, NEW SPECIES FROM SIERRA DE LA

MADERA, COAHUILA

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High in the Sierra de la Madera of central Coahuila, Mexico, I. M. Johnston (1944:81) found sterile rosettes that L. O. Williams said "probably" represent orchids of the genus Govenia Lindley. In 1972, Fernando Chiang, Tom Wendt and I saw similar rosettes in the upper part of the Cañón de la Hacienda of the same range. It was not until 1976 that Tom Wendt, Emily Lott and Mike Mispagel found associated with such a rosette one old tattered fruiting stalk lacking flower-parts. Finally, in 1980, Emily Lott and Tom Wendt managed to obtain one fairly intact fruiting stalk and enough flower-parts still attached to enable the reconstruction presented here. The new specimen shows that this plant pertains not to Govenia but to the genus Spiranthes L. Richard not only in the broad sense of Williams (1951) but, I believe, also in the strict sense of those who again dismember this assemblage. I have not been able to match the specimen in the herbarium or in previously published descriptions, and therefore propose it as a new species bearing the name of the enthusiastic and able botanist Emily Lott (born 25 August 1947) to whom I am indebted for making the material available.

SPIRANTHES EMILIAE M. C. Johnst., sp. nov.      Vide Fig 1.  
Herbae terrestres glabrae 5--8(--10) dm altae. Scapi graciles, 1--3 mm crassi. Folia rosulata late lanceolata vel anguste elliptica tenuissima integra viridia 4--6 cm lata 1--2 dm longa vel longiora petiolis 3--4 cm longis inclusis. Inflorescentia 30--35-flora conferta glabra. Flores adscendentes glabri; sepalum dorsale lanceolatum naviculatum carinatum ca 7 mm longum demum valde arcuatum; sepala lateralalia lanceolata ca 5 mm longa demum reflexa; petala lateralalia ca 7 mm longa tenuia fragilia; label-lum hemicylindricum fere integrum ca 4 mm longum; columna ca 2.5 mm longa; rostellum lamelliforme non emarginatum; anthera erecta ca 2 mm longa.

SPIRANTHES EMILIAE M. C. Johnst., new species. Slender, glabrous, terrestrial herbs 5--8(--10) dm tall. Scapes 1--3 mm thick with several scarious semiamplexicaul lanceolate acuminate bracts. Leaves in a basal rosette, broadly lanceolate to narrowly elliptic, very thin, entire, green, 4--6 cm wide, 1--2 dm long or longer of which the lower 3--4 cm represents a narrow petiole-like base. Inflorescence glabrous, rather dense (spiral disposition of flowers not evident), ca 30--35-flowered, ca 13 mm long and after anthesis becoming 2 cm thick; flowers ascending even in fruit, perhaps purplish green in part; dorsal sepal lanceolate, boat-shaped, keeled, ca 7 mm long, after anthesis becoming strongly arcuate-erect; lateral sepals lanceolate, ca 5 mm long, after anthesis usually reflexed over back of fruit; lateral petals ca 7 mm long, thin, fragile, each about half overlapping with and joined to dorsal sepal; lip ca 4 mm long, essentially entire or very obscurely 3-lobed, forming a trough under and around the column; column ca 2.5 mm long; rostellum lamellar, truncate or very subtly rounded, not emarginate; anther erect, ca 2 mm long, after dehiscence ascending or erect and connected to column by a thin membrane ca 0.5 mm long.

HOLOTYPE: MEXICO, Coahuila, Municipio de Cuatro Ciénegas, Sierra de la Madera, Cañón del Agua, 27°3' N. latitude, 102°24' W. longitude, common in creek with little running water, 1750--2200 m (this one at 1865 m), associated with Quercus gravesii Sudworth, Acer grandidentatum Nuttall, Prunus, Cornus, etc., 14 August 1980, Emily Lott and Tom Wendt P-22 (TEX, unicate).

PARATYPE: same mountain-range, Cañón Los Olmos at junction of eastern and western forks and just below, mesic limestone canyon oak-woodland with Quercus muehlenbergii Engelman, Q. gravesii Sudworth, Pinus arizonica Engelman, Cupressus arizonica Greene, Ceanothus coeruleus Lagasca, Acer, Carrya, Rhamnus betulifolia Greene, Quercus glaucoides Martens et Galeotti, Fraxinus cuspidata Torrey and Salvia regla Cavanilles, 1920 m, 27 September 1976, T. Wendt, E. Lott and M. Mispagel 1793 (TEX, unicate).

As stated above, I have been unable to match this species. Among the specimens of Spiranthes that I have had available for study the one that seems to come closest in form to S. emiliae is an Ecuadorian specimen of S. reichenbachiana Garay et Dunsterville. But that species differs from S. emiliae in so many particulars of size, shape, positioning and pubescence of flowers and leaves that a detailed comparison would serve no good purpose here. An estimate of the true relationships of S. emiliae will have to await the efforts of some monographer brave enough to tackle this congeries.

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#### Literature Cited

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Fig. 1. *Spiranthes emiliae* M. C. Johnst. drawn from the holotype. A. Habit-sketch. B. Lateral view of almost mature fruit with perianth and column still attached, right-hand sepal shown reflexed, left-hand sepal spreading, anther elevated and empty. C. Front view of B with lip slightly depressed to reveal column.